LISTING OF CLAIMS:

1. (Original) A method of eliminating or reducing infection in a biological material, the method comprising removing a binding site contained in the material so that an infectious agent is prevented or inhibited from binding to the biological material.

2. (Original) The method of claim 1, wherein the infection is prion infection, and the infectious agent is prion protein.

3. (Original) The method of claim 1, wherein the biological material is bioprosthetic tissue.

4. (Original) The method of claim 3, wherein the structural integrity of the tissue is maintained.

5. (Original) The method of claim 3, further comprising contacting the bioprosthetic tissue with a preparation comprising a surfactant.

6. (Original) The method of claim 3, further comprising contacting the bioprosthetic tissue with a preparation comprising a surfactant and a denaturing agent.

a1

7. (Original) The method of claim 6, wherein the surfactant is Tween 80.

8. (Original) The method of claim 6, wherein the denaturing agent is a protic solvent.

9. (Original) The method of claim 8, wherein the protic solvent is an alcohol.

10. (Original) The method of claim 9, wherein the alcohol is ethanol or isopropanol.

11. (Original) The method of claim 6, wherein the preparation further comprises an cross linking agent.

12. (Original) The method of claim 11, wherein the cross linking agent is an aldehyde.

13. (Original) The method of claim 12, wherein the aldehyde is formaldehyde or glutaraldehyde.

14. (Original) The method of claim 1, wherein the infectious agent binding site is comprised of phospholipid.

15. (Original) The method of claim 14, wherein the phospholipid is selected from the group consisting of phosphatidylinositol, phosphatidylethanolamine, gangliotetraosylceramide, phosphatidylserine, phosphatidylcholine, phosphatidic acid, and sphingomyeline.

16. (Original) The method of claim 14, further comprising contacting the tissue with a preparation including a phospholipase.

17. (Original) The method of claim 1, further comprising contacting the bioprosthetic tissue with a preparation comprising formaldehyde, ethanol, and Tween 80.

18. (Original) The method of claim 2, wherein the prion protein further comprises prion-precursor protein.

19. (Original) The method of claim 1, further comprising a terminal sterilization step.

20. (Original) The method of claim 1, further comprising washing the tissue to promote removal of the prion protein.

21. (Original) A method of treating a biological material, the method comprising removing a binding site contained in the material so that an unwanted protein is prevented or inhibited from binding to the biological material.

22. (Original) The method of claim 21, wherein the unwanted protein is selected from the group comprising alkaline phosphatase, Thy-1, and acetylcholinesterase.

23. (Currently Amended) A method of eliminating or reducing infection in a biological material, the method comprising removing a binding site comprising ~~binding site~~ a protein or polysaccharide, contained in the material so that an infectious agent is prevented or inhibited from binding to the biological material.

24. (Original) The method of claim 23, wherein the infection is prion infection, and the infectious agent is prion protein.

25. (Original) The method of claim 23, wherein the structural integrity of the tissue is maintained.

26. (Original) The method of claim 23, further comprising contacting the bioprosthetic tissue with a preparation comprising an enzyme that digests the binding site.

27. (Original) The method of claim 26, wherein the preparation comprises heparinase, in an amount effective to remove the binding site.

28. (Original) The method of claim 23, further comprising contacting the bioprosthetic tissue with a preparation comprising a solvent, a surfactant, or a chaotropic agent in an amount effective to extract the binding site from the tissue.

a1

29. (Original) The method of claim 23, further comprising contacting the bioprosthetic tissue with a preparation that chemically derivatizes a polycationic site, thereby eliminating the binding site from the tissue.

30. (Original) The method of claim 23, wherein the binding sites has binding affinity to exogenous prion protein.

31. (Original) The method of claim 23, further comprising contacting the tissue with a preparation that has binding affinity for endogenous prion protein, so that a bound complex is formed between the preparation and the endogenous prion protein.

32. (Original) The method of claim 31, further comprising a washing step to remove the bound complex from the tissue.

33. (Original) A method of eliminating or reducing infection in a bioprosthetic tissue, the method comprising blocking a binding site contained in the tissue so that an infectious agent is prevented or inhibited from binding to the binding site.

34. (Original) The method of claim 33, wherein the infection of prion infection, and the infectious agent is prion protein.

35. (Original) The method of claim 33, wherein the structural integrity of the tissue is maintained.

36. (Original) The method of claim 33, wherein the blocking step further comprises contacting the bioprosthetic tissue with a preparation comprising one or more polysulfonated polyglycosides.

37. (Original) The method of claim 36, wherein the one or more polysulfonated polyglycosides are selected from a group consisting of pentosan polysulfate, sulfated colomycin, dextran sulfate, sulfated carageenans, and heparin/heparan sulfate.

38. (Original) The method of claim 36, wherein the contacting step is performed at a temperature of about 37° C.

39. (Original) The method of claim 33, wherein the contacting step promotes the dissociation of prion protein from the bioprosthetic tissue.

40. (Original) A method of eliminating or reducing infection in a bioprosthetic tissue, the method comprising blocking an infectious agent so that the infectious agent is prevented or inhibited from binding to a binding site in the tissue.

41. (Original) The method of claim 40, wherein the infection is prion infection, and the infectious agent is prion protein.

42. (Original) The method of claim 40, wherein the blocking step further comprises contacting the bioprosthetic tissue with a preparation comprising a compounds selected from tetrasubstituted porphyrin, polyanionic fungal agent, congo red, fast red, trypan red and combinations thereof.

43. (Original) The method of claim 40, wherein the method is performed before, during, or after fixation.

44. (Original) The method of claim 40, wherein the method is performed during bioburden reduction.

45. (Original) The method of claim 40, wherein the method is performed during final sterilization.

46. (Original) The method of claim 40, wherein the method is performed during packaging.

47. (Original) The method of claim 46, further comprising storing the tissue in the preparation.

48. (Original) The method of claim 42, wherein the preparation further comprises one or more cross-linkable groups that prevent or inhibit dissociation of the one or more polysulfonated polyglycosides.

49. (Original) The method of claim 48, wherein the cross-linkable group is selected from a group consisting of lysine groups and azide moieties.

50. (Original) A method of eliminating or reducing calcification in a biological material, the method comprising removing a phospholipid calcium nucleation site contained in the material so that calcium is prevented or inhibited from binding to the biological material.

51. (Original) The method of claim 50, wherein the biological material is bioprosthetic tissue.